

Application No.: 10/826,637
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REMARKS

Support for the above-requested amendments to claim 1 is found at least in paragraphs [0038] and [0039] and in original claims 3 and 7. Support for the amendments to claim 14 is found at least in paragraph [0041]. Support for the amendments to claim 22 is found at least in paragraph [0026]. New claim 51 is supported at least by paragraphs [0025] – [0033] and [0052] – [0054]. Support for new claims 52 and 53 is found at least at paragraph [0052]. New claim 54 is supported at least by paragraphs [0052] – [0053]. New claim 55 is supported at least by paragraph [0041]. Support for new claim 56 is supported at least by paragraph [0054]. New claim 57 is supported at least by paragraph [0013]. Support for newly added claims 58 and 59 is found at least at paragraph [0039]. Applicants have amended claim 19 for grammatical reasons and have changed the dependency of claims 4 - 6, 8, 10, 11 and 27. At least the amendments to claims 4 - 6, 8, 10, 11, 19 and 27 were not made for any reason related to patentability. Claims 2, 3, 7, and 29 - 50 have been canceled without prejudice. No question of new matter arises and entry of the above-requested amendments and new claims is respectfully requested.

Claims 1, 4 - 6, 8 - 28, and 51 - 59 are before the Examiner for consideration.

Formal Matter

As shown above, Applicants have added new claims 51 - 59 by amendment. Because claims 2, 3, 7, and 29 - 50 have been canceled (twenty-five claims in total) and claims 51 - 59 have been added (nine claims in total), the total number of claims Applicants are submitting for examination is not greater than the total number of claims previously presented and paid for. Applicants, therefore, respectfully submit that no additional filing fees are required for newly added claims 51 - 59. In addition, Applicants respectfully submit

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that there are no fees required for new independent claim 51 because the total number of independent claims present in the application (*i.e.*, two independent claims) does not exceed the total amount of independent claims previously paid for (*i.e.*, six independent claims). Furthermore, because support for newly added claims 51 - 59 is found in throughout the specification, as identified in the opening paragraph of the Remarks, Applicants respectfully submit that these newly added claims do not contain any new matter.

Restriction Requirement

The Examiner has required an election in the above-identified application as follows:

Group I, Claims 1 - 28, drawn to a gypsum facing material classified in class 442, subclass 42; and

Group II, Claims 29 - 50, drawn to a method forming a gypsum facer classified in class 156, subclass 39.

The Examiner indicates that during a telephone conversation with Maria Gasaway on August 22, 2005, a provisional election was made with traverse to prosecute the invention of Group I, claims 1 - 28. Additionally, the Examiner notes that claims 29 - 50 have been withdrawn from further consideration as being drawn to a non-elected invention.

In response to this restriction requirement, Applicants hereby affirm the election of Group I, claims 1 - 28, and cancel claims 29 - 50 without prejudice.

Rejection under 35 U.S.C. §112, second paragraph

Claims 14, 19, and 22 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to set forth the subject matter that Applicants regard as their invention. In particular, the Examiner asserts that the phrase "needle-like" renders claim 14

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indefinite because the claim includes elements not actually disclosed (*e.g.*, those encompassed by “like”), thereby rendering the scope of the claim unascertainable. In addition, the Examiner asserts that claim 19 positively recites the use of polymeric fibers, the presence of which is not required by claim 17, from which claim 19 depends. The Examiner also asserts that the use of the tradename Advantex® in claim 22 renders the scope of the claim indefinite.

In response to this rejection, Applicants have amended claim 14 to remove the phrase “needle-like” and insert the term “acicular” to further clarify the reinforcing agent. In addition, Applicants have amended claim 19 to specifically recite the inclusion of polymeric fibers in the secondary veil. Finally, Applicants have amended claim 22 to remove the tradename and to describe the recited strands with more specificity.

In addition, Applicants respectfully note that the Examiner rejected claims 14, 19, and 22 only under 35 U.S.C. §112, second paragraph, and not for any reasons related to the prior art. As Applicants have now amended claims 14, 19, and 22 to overcome the rejections under 35 U.S.C. §112, second paragraph, Applicants respectfully submit that claims 14, 19, and 22 are in condition for allowance. Applicants, therefore, respectfully request an indication of allowance of at least claims 14, 19, and 22.

In view of the above, Applicants submit that the claims are sufficiently definite and respectfully request reconsideration and withdrawal of this rejection.

Rejection under 35 U.S.C. §103(a)

Claims 1- 3 , 7 - 12, 15 - 18, 20, 21 and 23 - 28 have been rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Application No. 2003/0203191 to Randall, *et al.* (“Randall”) in view of U.S. Patent Application No. 2002/0151240 to Smith, *et al.*

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("Smith"). The Examiner asserts Randall discloses a mat-faced gypsum board that includes mats of glass fibers coated with a coating composition that contains a polymer latex additive, an inorganic adhesive binder, and mineral pigments. The Examiner admits that Randall fails to disclose a mesh filament network and a coated, secondary reinforcing glass fabric layered onto the mesh. In this regard, the Examiner asserts that Smith discloses a composite facer that includes a glass scrim reinforcement that is bonded to a nonwoven mat with an acrylic adhesive. The Examiner notes that the acrylic adhesive of Smith has been equated to the coating on the veil of the present invention.

In response to this rejection, Applicants respectfully direct the Examiner's attention to claim 1 and submit that claim 1, as amended, defines a gypsum facing material that is not taught or suggested by the combination of Randall and Smith. In particular, the combination of Randall and Smith fails to teach a gypsum facing material that includes a randomly oriented open mesh filament network substantially impregnated with a first binder resin and a secondary binder resin applied to the mesh filament network, where the secondary binder resin includes at least one filler, at least one reinforcing agent, and at least about 6% by weight of a fairly low glass transition organic binder as recited in amended claim 1. Randall discloses a coated, fibrous mat-faced gypsum board coated with a coating that includes a mineral pigment (pigmented filler material), an inorganic binder, and a latex polymer binder. (*See, e.g.*, paragraph [0017]). Randall also discloses that the first latex polymer comprises about 0.1 to 5 percent of the coating. (*See, e.g.*, paragraph [0041]). In fact, Randall specifically teaches that the latex polymer comprises no more than about 5.0% by weight of the coating. (*See, e.g.*, paragraphs [0018] and [0041]). Applicants respectfully submit that this disclosure in Randall would lead one of skill in the art away from using an organic binder in an amount of more than about 5.0%. Applicants submit, therefore, that Randall teaches

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away from the presently claimed gypsum facing material and, as such, one of skill in the art would not arrive at the presently claimed invention based on the teachings of Randall.

With respect to Smith, Smith discloses a composite facer material that includes a nonwoven mat layer bonded to a laid scrim reinforcement layer made of continuous glass fibers. (*See, e.g.*, paragraph [0015]). The layers are bonded together using an acrylic adhesive or polymer binder. (*See, e.g.*, paragraph [0015]). However, Smith is completely silent as to the percentage of organic binder, especially a fairly low glass transition organic binder as recited in amended claim 1. As such, it is submitted that the combination of Randall and Smith does not teach or suggest Applicants' invention as recited in amended claim 1.

In addition, Applicants respectfully submit that there is no motivation for one of skill in the art to arrive at the invention recited in claim 1 based on the teachings of Randall and Smith. To establish a *prima facie* case of obviousness, there must be some motivation, either within the reference or in the knowledge of those of skill in the art, to modify the reference or combine the references' teachings, there must be a reasonable expectation of success, and the prior art references must meet all of the claim limitations. (*See, e.g., Manual of Patent Examining Procedure*, Patent Publishing, LLC, Eighth Ed., Rev. 3, August 2005, §2142). One of ordinary skill in the art simply would not be motivated to make a gypsum facing material that includes a randomly oriented open mesh filament network substantially impregnated with a first binder resin and a secondary binder resin applied to the open mesh filament network, where the secondary binder resin includes at least one filler, at least one reinforcing agent, and at least about 6% by weight of a fairly low glass transition organic binder because Randall, as discussed above, teaches using about 0.1 to 5%, and no more than

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about 5.0%, by weight of organic binder in the coating, and nothing in Smith teaches or suggests using a specific percentage of organic binder.

In view of the above, Applicants respectfully submit that claim 1 is non-obvious and patentable over the cited references. Because claims 8 - 12, 15 - 18, 20, 21, 23 - 28, and newly added claim 59 are either directly or indirectly dependent upon claim 1, which, as discussed above, is not taught or suggested by Randall and Smith, either alone or in combination, Applicants submit that claims 8 - 12, 15 - 18, 20, 21, 23 - 28 and 59 are also not taught or suggested by the combination of Randall and/or Smith. Applicants submit, therefore, that claims 1, 8 - 12, 15 - 18, 20, 21, 23 - 28, and newly added claim 59 are non-obvious and patentably distinguishable over the cited references.

With respect to newly added claims 51 - 58, Applicants submit that neither Randall nor Smith teach or suggest a gypsum facing material that includes (1) a randomly oriented open mesh filament network substantially impregnated with a first binder resin, (2) a first reinforcing agent applied to the open mesh filament network to improve the stiffness and/or the openness of the mesh, and (3) a secondary binder resin applied to the randomly oriented open mesh filament network where the secondary binder resin includes at least one filler, at least one second reinforcing agent, and a fairly low glass transition organic binder and where the secondary binder resin has a viscosity sufficient to prevent full penetration into the open mesh filament network. It is respectfully submitted that neither Randall nor Smith teach or suggest a gypsum facing material that includes a first and second reinforcing agent, a filler, and a fairly low glass transition organic binder. Thus, Applicants submit that new independent claim 51, and all claims dependent therefrom, are non-anticipatory, non-obvious, and patentable.

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In view of the above, Applicants submit that the present invention is not obvious over Randall and/or Smith, either alone or in combination, and respectfully request that this rejection be reconsidered and withdrawn.

Rejection under 35 U.S.C. §103(a)

Claims 4 - 6 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Randall and Smith as applied above to claim 1 and further in view of U.S. Patent No. 6,176,920 to Murphy, *et al.* ("Murphy") or U.S. Patent Application No. 2005/0009428 to Porter, *et al.* ("Porter"). The Examiner admits that Randall and Smith fail to disclose a binder resin that further includes a thermosetting resin and a crosslinking agent. In this regard, the Examiner asserts that Murphy teaches a cementitious structural panel that includes a fiberglass mesh and a coating composition that includes crosslinking agents. In addition, the Examiner asserts that Porter teaches fabric reinforcement and cementitious boards faced with the same. The Examiner further asserts that Porter teaches that the fabrics can be a non-woven mesh coated with binder compositions that include a thermoset resin. The Examiner concludes that it would have been obvious to one of ordinary skill in the art to have used Murphy's teaching of a crosslinking agent and Porter's teaching of a thermosetting resin in the gypsum facing panel of Randall and Smith to produce a gypsum board having increased weatherability and durability.

In response to this rejection, Applicants respectfully direct the Examiner's attention both to the amendments made to claim 1 and to the arguments presented above regarding amended claim 1 and submit that claim 1, as amended, defines a gypsum facing material that is not taught or suggested by Randall and Smith, either alone or in combination. Because claims 4 - 6 directly dependent from claim 1, which, as discussed above, is not taught or

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suggested by the combination of Randall and Smith, Applicants submit that claims 4 - 6 are also not taught or suggested by Randall and Smith. In addition, Applicants submit that the teachings of Murphy and Porter fail to make up for the deficiencies of Randall and Smith, such as, for example, the teaching of a secondary binder resin that contains at least about 6% by weight of a fairly low glass transition organic binder. As a result, Applicants submit that claims 4 - 6 are non-obvious and patentable over the cited references and respectfully request that the Examiner reconsider and withdraw this rejection.

Rejection under 35 U.S.C. §103(a)

Claim 13 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Randall and Smith, as applied to claim 1 above, and further in view of U.S. Patent No. 4,755,409 to Harkness ("Harkness"). In particular, the Examiner admits that Randall and Smith do not teach a fibrous reinforcing agent. The Examiner asserts that Harkness teaches a waterproofing laminate in which a reinforcing fabric, which can be a glass scrim, can be laminated to an elastomeric sheet that includes fibrous fillers such as wool and cotton fibers. The Examiner concludes that it would have been obvious to use the fillers of Harkness in the gypsum board facing material of Randall and Smith to create a material that has increased strength.

In response to this rejection, Applicants first respectfully direct the Examiner's attention to the amendments made to claim 1 and to the arguments presented above regarding amended claim 1 and submit that amended claim 1 defines a gypsum facing material that is not taught or suggested by the combination of Randall and Smith. In addition, Applicants submit that Harkness fails to make up for the deficiencies of Randall and Smith. More specifically, Harkness discloses an elastomeric sheet that includes fibrous fillers laminated

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with a reinforcing fabric such as a glass scrim. (*See, e.g.*, column 4, lines 4 - 6). However, Harkness fails to teach the inclusion of a fibrous reinforcing agent with a low glass transition organic binder and at least one filler in a binder resin for coating an open mesh filament network. In fact, Harkness is completely silent regarding the coating of a mesh filament network with a binder resin. Because claim 13 is dependent upon claim 1, which, as discussed above, is not taught or suggested by the combination of Randall and Smith, and because Harkness adds nothing to the teachings of Randall and Smith with respect to the inclusion of about 6% by weight of a low glass transition organic binder in a binder resin that is applied to an open mesh filament network, Applicants submit that claim 13 is not taught or suggested by the combination of Randall, Smith, and Harkness. As such, Applicants submit that claim 13 is non-obvious and patentable and respectfully request that this rejection be reconsidered and withdrawn.

CONCLUSION

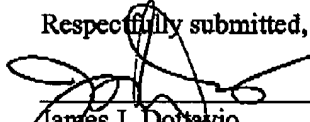
In light of the above, Applicants believe that this application is now in condition for allowance and, therefore, request favorable consideration. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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If necessary, the Commissioner is hereby authorized to charge payment or credit any overpayment to Deposit Account No. 50-0568 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17, particularly extension of time fees.

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Respectfully submitted,


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